



Copernicus Requirements Working Group - '99

C4I

View from the Fleet



Overview ...



- **SUCCESSSES**
- **“BACK TO BASICS”**
- **BANDWIDTH**
- **EMI**
- **SHORE SUPPORT**





Goods...



- **COMBAT SUCCESS**
- **TCD / D-30 PROCESS IMPROVING**
- **FEEDBACK FROM FLEET CRITICAL**
- **TIMING OF FUNDING TO
INSTALLERS**
- **STATE OF THE ART GEAR WORKS**





“Back to Basics” ...



- PRE-Underway COMM Checks
- COMSPOTs when circuits down
- CASREP Philosophy
- INTEGRATED SCHEDULE
- HF Procedures
- EMCON must be practiced





Bandwidth ...



- **INMARSAT B HSD is Crucial**
 - **SHORE CAPACITY TECH SUPPORT**
 - **FUNDING OF LEASES**
 - **TIMESHARE Requirements**





Bandwidth ...



- **BANDWIDTH MANAGEMENT FOR FUTURE SYSTEMS UNCLEAR**
 - Global Broadcast System (GBS)
 - EHF Medium Data Rate (MDR)
 - SHF DSCS to CRUDES units
- **SUBMARINE ASYMMETRIC Challenges**
- **ALLIED Connectivity Paths**
- **SHORE Terminations (CA III / DSCS / ADNS)**



EMI...



- **NOT FUNDED properly**
- **OUTDATED GUIDANCE**
- **EXISTING PROCEDURES NOT Followed**
- **IMPACT on both HARD and SOFT KILL**





Shore Support ...



- **24 / 7 ABSOLUTE Requirement**
- **Systems Operation / Verification Tests (SOVT)**
 - **INTEGRATED SOVT**
 - **Greater NCTAMS / SPAWARSYSCEN PLAY Required**
- **COTS VS. Military Equipment**
 - **TIE C4I INTO Distributed Engineering Plant TESTING**





Lessons from the Past..



- **FOCUS on Fielding Capability Quickly**
 - Program Stability and Funding Flow necessary
 - Proper Auxiliary Engineering support required
- **Delivery of Systems not fully Ready**
 - Shortcuts in development and SYS ENG
 - Insufficient testing ashore
 - Inadequate training and logistics
 - PMs not ensuring Interoperability





The Way Ahead ...

- Need Realistic Installation Schedules
- Training for Fleet personnel is essential
- Train on systems like we will Fight
 - Must Know How to Communicate “Hurt”
- Get Back to Basics
- Comms are still the “Main Battery”
- Bandwidth is Critical and requires careful management and planning
- Test and Stress C4I / Combat Systems / EMI Interface



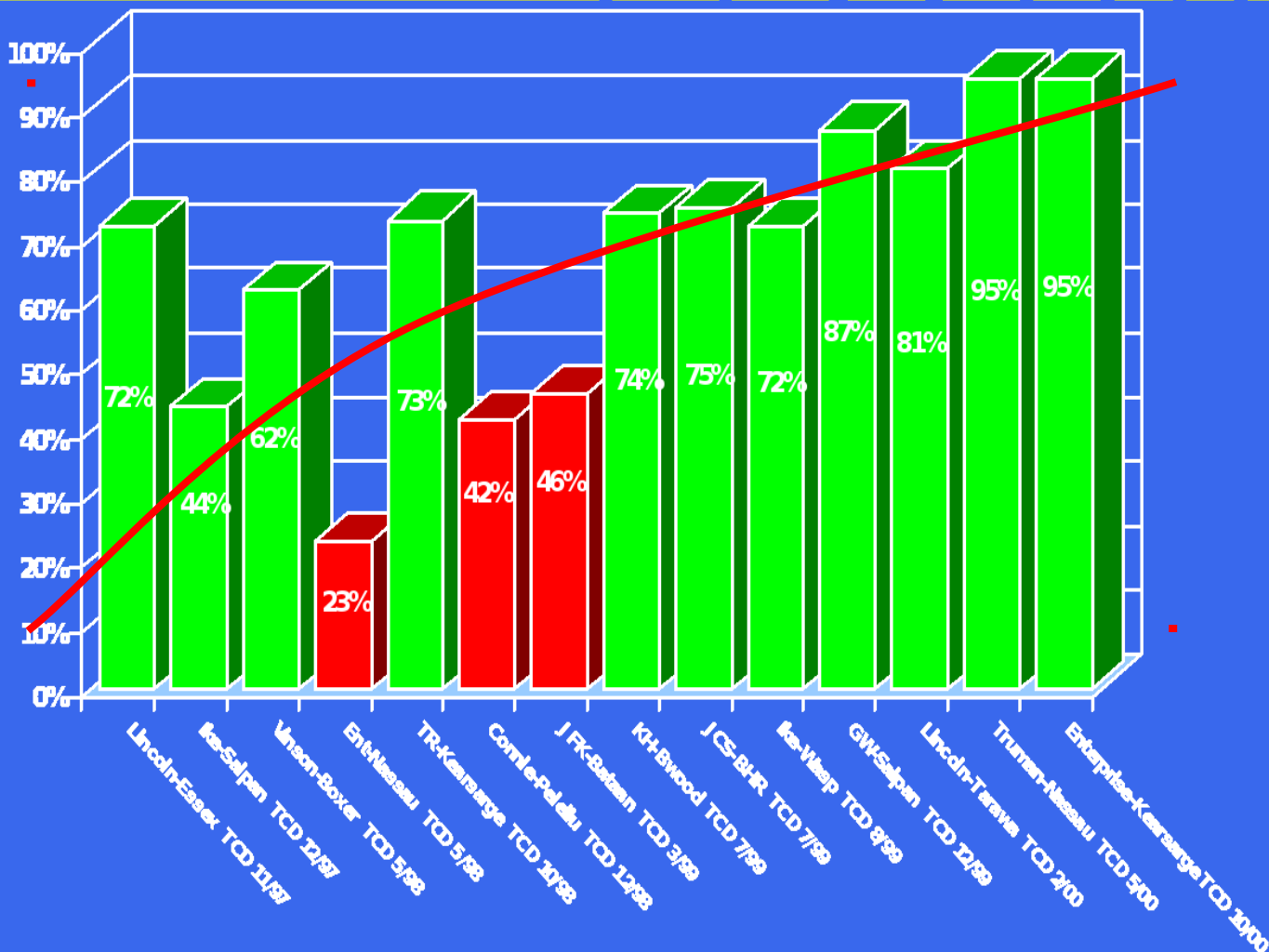


BACKUP SLIDES . . .





TCD Completion Rate





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COMSECONDFLT
COMSTRIKFLTANT